

AMENDMENTS TO THE SPECIFICATION

IN THE SPECIFICATION:

Replace the paragraph beginning on page 15, line 2 with the following:

Figs. 6-9 further illustrate the disclosed transformation of a variable looping statement into an equivalent looping statement for purposes of loop unrolling optimization. Fig. 6 shows a generalized constant looping statement 60 as would be generated by an illustrative embodiment of the disclosed system in response to the generalized-variable looping statement shown in Fig. 3 in the case where the loop index of the variable looping statement is an increasing loop index. The generalized constant looping statement 60 of Fig. 6 is shown including a LOWER_BOUND_EXPRESSION 62, an UPPER_BOUND_EXPRESSION 64, and an INCREMENT_EXPRESSION 66. The LOWER_BOUND_EXPRESSION 62 compares the loop index of the constant looping statement 60 with a lower bound determined in response to the INIT expression 16 shown in Fig. 3, as described above with reference to step 52 of Fig. 5. The UPPER_BOUND_EXPRESSION 64 compares the loop index of the constant looping statement 60 with an upper bound determined in response to the EXIT expression 18 shown in Fig. 3, as also described above with reference to step 52 of Fig. 5. The INCREMENT_EXPRESSION 66 increases the value of the loop index in the constant looping statement 60 just as the INC expression 20 increased the value of the loop index in the variable looping statement 14 in Fig. 3. The condition 68 consists of the logical AND of the INIT expression 16 and the EXIT expression 18 of the variable looping statement 60_14 of Fig. 3. Accordingly, the STATEMENT_BODY 69 is only executed in the event that both the INIT expression 16 and the EXIT expression 18 are satisfied. The STATEMENT_BODY 69 includes the BODY_OF_STATEMENTS 22 of the variable looping statement 14 shown in Fig. 3.